Last revised: October 15, 2014

# Fall 2014

# SOCI 304/ENST 302: Environmental Issues – Rice into the Future

Instructors: Professors James Elliott and Richard Johnson

## Course Overview

Inspired by the campus greening movement, this class allows students to engage in environmental issues and possible solutions in a tangible way at Rice.

## Learning Outcomes

Students will be introduced to the concept of sustainability and to a general framework for understanding the impact of humans on the environment. They will also be introduced to the environmental movement at large, and more specifically to the campus environmental movement. As further context, students will be introduced to the idea of urban sustainability, and how Rice as an urban campus fits within this system. Students will learn how to plan, implement, and assess the effectiveness of environmental change via a group project using the Rice campus as their laboratory. Through a series of readings, students will be exposed to selected broad environmental topics, and as part of their group project will be challenged to pursue a narrower set of subject-specific readings and research and to demonstrate their understanding of the subject material.

This course should not be confused with a comprehensive introduction to environmental studies or environmental sciences.

## Overview of Assignments

Graded work in the class will consist of the following components:

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|---|---|
| Individual Reading Memos (4 @ 5 points each) | 20 points |
| Green Group Research | |
| Written Report | 20 points |
| In-class Presentation | 5 points |
| Green Group Project | |
| Detailed Plan | 5 points |
| Written Report – First Draft | 10 points |
| Written Report – Final Draft | 20 points |
| In-class Presentation | 10 points |
| Individual Performance | 10 points |
| Total points: | 100 |

**Reading Memos**: Writing is a powerful way to develop deeper understanding of a subject. For these individually graded assignments, you'll engage key ideas from assigned readings in a formal, written memo (i.e., with proper grammar, punctuation, and spelling). Each memo should be at least 750 words, or roughly 2.5 pages, double-spaced in length and are due by 8am on OWL-Space on assigned dates. There are 4 of these assignments during the term. There is no extra credit for extra memos, nor is there

opportunity to turn them in late for credit. Below are some basic questions to help develop your written submissions. (You may also include questions in your memos that you'd like us to consider during class discussion.)

- What's the reading's main question, and why is it important?
- What's the reading's answer?
- What logic or evidence does the reading marshal to support this answer?
- What are the (theoretical, methodological, political or practical) implications of this answer?

**Green Group Research:** An important part of implementing change is examining what others have done and learning from their successes and failures. These group research efforts and presentations will help us to understand how other universities and stakeholder are tackling issues that you are addressing with your project. The order of the presentations will be determined in part to provide a thematic flow. Presentation guidelines will be posted on OWL-Space. Please stay within your time limit.

**Green Group Project:** This project is the cornerstone of the course; is connected to the group project experience; and constitutes the majority of your grade. Each project group will:

- submit a detailed project plan in late September describing the goals, timeline, and environmental justification for the project;
- submit a first draft of the project report in mid-November, accompanied by a short in-class presentation on this draft;
- Submit a final report due on the last day of classes, accompanied by a final, formal in-class presentation.

Note that students will be required to evaluate their team members' performance and their own performance on the project both midway through the course and after completion of the final project. While the evaluations themselves are not graded, they are used to calculate the individual performance grade of each team member. Therefore, failure to submit evaluations (or submission of unhelpful evaluations) may result in a penalty on the final course grade.

There will be no final exam.

## Grading

Letter grades are based on individual and group performance, not a curve.

| | | | |
|---|---|---|---|
| A+ = 98-100 | B+ = 88-89 | C+ = 78-79 | D+ = 68-69 |
| A = 93-97 | B = 83-87 | C = 73-77 | D = 63-67 |
| A- = 90-92 | B- = 80-82 | C- = 70-72 | D- = 60-62 |

Each submitted assignment will be reviewed by both instructors as well as the teaching assistant. This helps to ensure that students receive consistent and balanced grading. However, this approach adds time to the grading process. We request and appreciate your patience regarding turn-around time for grading.

Attendance is mandatory. If you anticipate missing a class, please send advance notice to both instructors as well as to the teaching assistant. We reserve the right to adjust your grade based on attendance and

class participation. In particular, we reserve the right to adjust your grade if you are found to be using your laptop or other electronic devices to engage in web-surfing, texting, social networking, etc. that is unrelated to the class. We also reserve the right to change the weighting of how grades are calculated, as well as the number of assignments. This is a dynamic and flexible syllabus, subject to change.

We will not engage in "grade inflation." Further, we will not continue any conversation or appeal concerning your final grade in which the student says what grade they "need" for the course. The discussion should focus solely on what grade the student earned and deserved, not what they "need."

Please be advised that this class relies heavily upon your ability to work on a project team. As such, we grade your individual performance based in part on a series of evaluations provided by your peers. Further, please note that your performance may impact the grades of others. If you intend to take this class using a pass/fail option, please think carefully and selflessly about your obligations to your classmates. We have high expectations for your level of commitment to this class and are not unwilling to fail a student who does not deserve to pass.

Any student with a documented disability needing academic adjustments or accommodations is requested to contact the instructors during the first two weeks of class. All discussions will remain confidential. Students with disabilities should also contact Disability Support Services in the Ley Student Center.

## Course Texts

Required text:

- Pollan, Michael. *The Omnivore's Dilemma: A Natural History of Four Meals*. New York: Penguin Press, 2006.

The remainder of the course readings will be made available via OWL-Space.

## Contacts

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## Schedule

## Week 1 – Introduction

**Tuesday, August 26th: Course Introduction**

Students will learn about the course, and will participate in a group exercise to assess perceived environmental strengths, weaknesses, and attitudes at Rice.

**Thursday, August 28th: What is Sustainability?**

Prof. Johnson will provide an overview of the concept of sustainability and a general framework for understanding the impact of humans on the environment.

Required reading:

- Brown, Lester R. "On the Edge." In *World on the Edge: How to Prevent Environmental and Economic Collapse*, 3-18. New York: W.W. Norton & Company, 2011. http://www.earth-policy.org/images/uploads/book_files/wotebook.pdf
- Global Footprint Network. "Footprint Basics – Overview." Last modified April 22, 2011. http://www.footprintnetwork.org/en/index.php/GFN/page/footprint_basics_overview/

Required viewing:

- Dr. Albert A. Bartlett. "Arithmetic, Population, and Energy." View the entire 1:13:54 lecture at http://www.youtube.com/watch?v=umFnrvcS6AQ
- William McDonough. "A Celebration of Abundance: Something Lived, Something Dreamed." Stanford University, October 15, 2008. View the entire 1:11:56 lecture at: http://www.youtube.com/watch?v=L0c-QUxVJcM

Required Exercise:

- Go to http://www.footprintnetwork.org/en/index.php/GFN/page/calculators/ and calculate your ecological footprint using the footprint calculator. Record how many global acres of the Earth's productive area are necessary to support your lifestyle, and how many Planet Earths we would need if everyone lived and consumed like you. Be prepared to share these numbers in class.

## Week 2 – Setting the Context

**Tuesday, September 2nd: What Is Urban Sustainability?**

Prof. Elliott will discuss urban sustainability and how campuses such as Rice are a part of – not separate from – the urban settings they help to comprise. He will talk about urban sustainability as the background context for sustainability at Rice.

Required reading:

- Cronon, William. 1995. "The Trouble with Wilderness; or, Getting Back to the Wrong Nature." Online: http://www.williamcronon.net/writing/Trouble_with_Wilderness_Main.html
- Benton-Short, Lisa and John Rennie Short. Chp. 16 "Urban Sustainability." In *Cities and Nature, Second Edition*, 436-483. New York: Routledge, 2013.

Required Exercise:

- Introductory Memo: Please draft a 1-page memo telling us
  - who you are (including year/major),
  - where you are from,
  - what your interests are,
  - why you are taking this class,
  - what sort of background you have with environmental activities (if any),
  - what is your favorite outdoor place/natural site,
  - and what you hope to get out of this class.

Please submit the memo via OWL-Space by the beginning of class. This is just for informational purposes, and will not be graded (although failure to submit an introduction will be noted as part of your class participation).

**Thursday, September 4th: What Is Campus Sustainability?**

Prof. Elliott will introduce the concept of a social movement and ways of thinking about different social movements, including the environmental movement. Then, Prof. Johnson will discuss the rise of the modern campus environmental movement, including at Rice. Time permitting, in preparation for the topical research paper, Prof. Elliott will then outline techniques for interviewing environmental leaders and change agents on other university campuses.

Required reading:

- Orr, David. "What is Education for?" *In Context* #27 (Winter 1991): 52-55. http://www.context.org/ICLIB/IC27/Orr.htm
- Johnson, Richard R. and Elizabeth Long, "A Decade of Lessons from Connecting Campus Greening with the Classroom at Rice University." *Teaching Sustainability: Perspectives from the Humanities and Social Sciences*, Stephen F. Austin University Press, 2014.
- Hawken, Paul. "The Beginning" and "Blessed Unrest." In *Blessed Unrest*, 1-8, 9-26. New York: Viking, 2007.
- Johnson, Richard R. and Andrea Larson. "An Overview of the Historical Context for Sustainable Business in the United States, 1960-2000." Charlottesville, VA: University of Virginia Darden School Foundation, 1999.

**Reading Memo #1, due by 8AM on 9/4 via OWL-Space**:

- Critically engage at least two readings from Weeks 1 and 2, making connections where appropriate.

Required assignment:

- Go to www.aashe.org and using your Rice University email address, please create an account.
- Then, go to http://www.aashe.org/connect/enewsletters/bulletin and enter your email address in the box labeled "Subscribe to Bulletin." This will put you on the mailing list to receive the free weekly AASHE new bulletin, which reports highlights of campus sustainability projects all across the US.
- Visit the "Sustainability at Rice" web site at http://sustainability.rice.edu for an initial glimpse at Rice's campus greening efforts.

Optional Resource:

- Consider "liking" the Sustainability at Rice University Facebook page, which is a source for news and announcements regarding sustainability at Rice.

## Week 3 – Selecting Your Issue

**Tuesday, September 9th: Discuss / brainstorm project ideas**

We will bring the focus of the class specifically to Rice today and begin a process of brainstorming ideas for group projects.

Required reading:

- Review the Project Ideas document in the resources section of OWL-Space to jump-start the discussion about possible project topics.
- Go to the archives of the AASHE Bulletin and skim the four most recent editions. http://www.aashe.org/resources/aashe-bulletin-archives#bulletin

Required assignment:

- Think about project topics of interest to you and browse the AASHE Bulletin archives to see what others are doing to improve their performance in that area.

**Thursday, September 11th: Discuss and reduce project list, apply for project.**

Whereas Tuesday was all about putting ideas on the board, today will be a day of focusing those ideas and eliminating some topics. By the end of class, we intend to have five general project ideas for class projects. We will then provide you with a voting sheet, which must be turned-in by Friday at noon so that we can assign you to a project team.

## Week 4 – Launching Your Project, Learning about Rice

**Tuesday, September 16th: Projects assigned, meet with groups.**

Today you will receive your group project assignments and hold your first meeting with your team members. You will also receive your Green Group Research topic. We will spend some time in class discussing this assignment, which will be due on Friday, October 24th at 5PM.

Required reading:

- Weklar, Diane. "Becoming a Change Agent." 2004. Last accessed June 16, 2011. http://www.dfw-asee.org/archive/0409meet.ppt
- Anderson, Carol E. and D. Min. "Practices of Effective Teams." Unpublished. Developed for and shared by Mike Shriberg, University of Michigan.

**Thursday, September 18th: Green Cleaning – Eusebio Franco, Facilities Engineering and Planning**

Today's class will feature a guest lecture from Eusebio Franco, Director of Custodial and Grounds, and several members of his team. Mr. Franco oversees campus grounds-keeping, the cleaning in all academic and administrative buildings, and the handling of solid waste and recycling. If you are working on a project that is connected to any of these topics, this is an excellent opportunity to interact with a key stakeholder.

Required reading:

- Ashkin, Stephen and David Holly. "Why is Green Cleaning Important?" In *Green Cleaning for Dummies: ISSA Special Edition*, 21-30. Hoboken, NJ: Wiley Publishing, 2007.
- Miller, G. Tyler, Jr. "Solid and Hazardous Waste." In *Living in the Environment*, 519-545. 15th ed. Canada: Thomson, 2007.

## Week 5 – Launching Your Project, Learning about Rice, Part 2

**Tuesday, September 23rd: Group Consultations**

We will meet directly with each project team for about 15 minutes. For the remainder of that time, you should work with your team. If you need to leave class as a group to meet with someone related to your project, you may do so with prior approval.

**Thursday, September 25th: Greening the Residential Colleges – Mark Ditman, Housing and Dining**

Today's class will feature a guest lecture from Mark Ditman, Associate Vice President for Housing and Dining. Mr. Ditman oversees the residential colleges and serveries, as well as food service in the RMC. If you are working on a project that is connected with the colleges, this is an excellent opportunity to interact with a key stakeholder.

Required viewing:
- "Jeremy Rifkin About Global Warming and the Solar Future." New Energy TV. View the entire 54:48 video at https://www.youtube.com/watch?v=c-NA9gM49qU

Required assignment:
- Complete the self-guided campus sustainability walking tour.

Optional Resource:
- Consider "liking" the Rice University Housing and Dining Facebook page.

## Week 6 – Contextualizing Your Project, Part 1

**Tuesday, September 30th: Student-led discussion / group work session**

How does your project fit within the broader environmental context? What global, national, or regional environmental issues will your project at Rice help to address? Today we will begin a series of student-led discussions with readings selected by each project team. Following the discussion you will work with your project team, and with prior approval you may leave class as a group to meet with someone related to your project. We encourage you to use this time to work on your Project Plan, which is due on 10/3.

Required reading:
- Group 1 selection
- Group 2 selection

Recommended reading:
- To assist each team in preparing to lead a classroom discussion, we encourage students to read the following brief article: Bornstein, David. "The Questions We Share" *The New York Times* August 7, 2014.

**Thursday, October 2nd: Student-led discussion / group work session**

Today we will continue with student-led discussions. Then we will provide additional class time for teams to work on their Project Plan.

Required reading:
- Group 3 selection
- Group 4 selection

**Friday, October 3rd: Project Plan Due by 5PM – Submit via OWL-Space**

## Week 7 – Contextualizing Your Project, Part 2

**Tuesday, October 7th: Group Consultations**

We will meet directly with each project team for about 15 minutes to return and discuss the Project Plan. For the remainder of the time, you should work with your team. If you need to leave class as a group to meet with someone related to your project, you may do so with prior approval.

**Thursday, October 9th: Interview Guidelines, Group Project Time**

We will devote the first 10-15 minutes of class to offer you a primer on conducting interviews. Following that, project teams should feel free to use the time for out-of-class meetings, or working collaboratively in-class.

**Reading Memo #2, due by 8AM on 10/9 via OWL-Space:**
- Critically engage at least two readings from Weeks 4 through 6, making connections where appropriate.

## Week 8 – Urban and Campus Metabolisms, Part 1

**Tuesday, October 14th: Fall Recess – NO CLASS!**

Heads-up! You have a lot of reading due in just three weeks, including over 200 pages from *The Omnivore's Dilemma.* Plan your time wisely, and consider getting a head-start.

**Thursday, October 16th: Urban Metabolism**

This week we focus on notion of the "urban metabolism" from various disciplinary angles.

Required reading:
- Wolman, Abel. 1965. "The Metabolism of Cities." *Scientific American* 213: 179-190.
- Foster, John Bellamy. 1999. "Marx's Theory of Metabolic Rift: Classical Foundations for Environmental Sociology." *American Journal Sociology* 105(2): 366-405.

**Reading Memo #3, due by 8AM on 10/16 via OWL-Space:**
- Critically engage the two readings from Week 8, making connections where appropriate.

## Week 9 – Presenting Lessons from Other Universities

**Tuesday, October 21st: Green Group Research Presentations**

An important part of implementing change is examining what others have done and learning from their successes and failures. The green campus research presentations will help us to understand how other universities are tackling the issues that you are addressing with your project. The order of the presentations will be determined in part to provide a thematic flow. Presentation guidelines are posted on OWL-Space. Please stay within your time limit.

**Thursday, October 23rd: Green Group Research Presentations**

Today is the last day of the green campus presentations. By the end of class, we should have a composite view of how universities are working to improve their environmental performance in our five project areas. Broader themes and lessons are likely to emerge that cut across the five areas.

**Friday, October 24th: Green Campus Research Papers Due by 5PM**

## Week 10 – Urban and Campus Metabolisms, Part 2

**Tuesday, October 28h: Green Group Project Consultations**

We will meet directly with each project team for about 15 minutes. For the remainder of the time, you should work with your team. If you need to leave class as a group to meet with someone related to your project, you may do so with prior approval. Professor Johnson will not be in attendance for today's class.

**Thursday, October 30th: The Flora and Fauna of Rice University**

Today Dr. Scott Solomon of the Department of Ecology and Evolutionary Biology will lead the class in an exploration of the flora and fauna of the Rice University campus.

Required reading:

- Leopold, Aldo. "The Land Ethic." From *A Sand County Almanac*. New York: Oxford University Press, 1948.

Required viewing:

- Go to YouTube and search for "Birding at Rice University" and view the video uploaded on December 1, 2011. Following is the url: http://www.youtube.com/watch?v=FaAw5r4BRCc&feature=plcp
- Go to YouTube and search for "Centennial Series: The man who left his green thumbprint on the Rice campus" and view the video uploaded on June 22, 2012. Following is the url: http://www.youtube.com/watch?v=FdKhFYFEOF8&feature=plcp
- Go to http://fon-gis.rice.edu/ricetrees/ and explore the campus tree map. Use the map to identify trees that are of interest to you.
- Richard Louv, "Videos about *Last Child in the Woods*," http://richardlouv.com/books/last-child/videos/
- Go to YouTube and search for "Rice University is named a Tree Campus USA" and view the video uploaded on February 22, 2012. Following is the url: http://www.youtube.com/watch?v=2nLOs6Ql0U8&feature=plcp

Required Assignments:
- Submit the mid-term self and team-member evaluation form via OWL-Space.
- Prior to class, take a self-guided walking tour of highlights of the Lynn R. Lowery Arboretum, which encompasses the entire Rice campus. Tour maps will be provided in advance.

Optional Resource:
- Consider "liking" the Lynn R. Lowery Arboretum at Rice University Facebook page.

## Week 11 – Focus on Food, Focus on Your Projects: Part 1

**Tuesday, November 4th: The Omnivore's Dilemma**

We will use today's class to discuss our complicated relationship with food. Following class, we encourage you to visit the Rice University Farmers' Market, which operates in the Greenbriar Lot on the west side of Rice Stadium on Tuesdays from 3:30 – 6:30 PM.

Required reading:
- Pollan, Michael. *The Omnivore's Dilemma: A Natural History of Four Meals*. New York: Penguin Press, 2006. Pages 1-119, 123-133, 185-273.

Required viewing:
- Food, Inc. http://www.youtube.com/watch?v=OEu27wZZtHI

**Reading Memo #4, due by 8AM on 11/4 via OWL-Space:**
- Critically engage *The Omnivore's Dilemma* and *Food, Inc.*, making connections where appropriate. Both are provocative and polarizing – let us know what you really think! Feel free to include personal experiences and observations if you'd like.

**Thursday, November 6th: Group Consultations**

With deadlines rapidly approaching for the submittal of your first draft, we will use today's class to meet with each project team to get a status report and to answer questions. Come prepared to use this meeting time effectively. For the remainder of the time, you should work with your team. If you need to leave class as a group to meet with someone related to your project, you may do so with prior approval.

## Week 12 – Focus on Food, Focus on Your Projects: Part 2

**Tuesday, November 11th: Project group status presentation to class**

What have the other groups been up to? Today we will ask each group to informally spend 5-10 minutes updating the class on the scope and status of their project.

**Thursday, November 13th: Food Panel**

Today's class will feature a panel of guests who participate in Rice's food system. Guests include Lisa and Christian Seger of Blue Heron Farm, Rice University Farmers' Market manager Beth Leaver, Chef Johnny Curet, and Rice University dining director David McDonald.

Required reading:
- Johnson, Richard R. "Lessons from Hosting a Farmers' Market at Rice University." In *Greening of the Campus VIII Conference Proceedings*, ed. Robert J. Koester. Ball State University, 2009.
- Visit http://farmersmarket.rice.edu/

Required viewing:
- Go to YouTube and search for "Rice University Farmers Market" and view the video uploaded on July 14, 2011. Following is the url: http://www.youtube.com/watch?v=qSfCnSl7djA&feature=player_embedded
- Go to YouTube and search for "Farm to Fork at Rice University" and view the video uploaded on Feb. 17, 2014. Following is the url: https://www.youtube.com/watch?v=DpnhgeivAWk

Required Assignments:
- Come to class prepared to ask at least one question of our panelists.

Optional:
- Consider "liking" the Rice University Farmers Market Facebook page.
- Prior to class, do one of the following:
  - Visit the Rice Coffeehouse and ask about the organic, fair-trade certified coffee that they serve.
  - Eat lunch or dinner at the Baker College Kitchen and ask for local or organic food options.
  - Go off-campus and have a meal at Radical Eats at 507 Westheimer (new location!), Ruggles Green at 2311 West Alabama, or Local Foods at 2424 Dunstan in the Rice Village. Be sure to ask about local or organic food options.

## Week 13 – Tying it all Together: The City, The Campus, The Class, The Projects

### Tuesday, November 18th: Project Team Work Session

With a deadline approaching to submit the first draft of your final report, we are giving you time in class to work with your team on your report. This is not a time for meetings outside of class, but rather to work specifically on the report. The first drafts are due in class on Thursday, November 20th.

### Thursday, November 20th: Ideas for Rice, Its City, and the Course

As we approach the end of the semester, we ask for your input on how to make Rice and its surrounding environs more sustainable, and how to improve the quality of the class.

Assignment due:
- The first draft of your team's final report is due in class. They will be returned with comments on Tuesday. We will meet with each team on Tuesday to discuss the comments.

## Week 14 – Preparing Your Final Report

**Tuesday, November 25th: Group Consultations**

Today we will meet at a pre-scheduled time with each group. We will return the first draft of your final report with comments.

**Thursday, November 27th: Thanksgiving – NO CLASS**

## Week 15 – Presenting Your Work

**Tuesday, December 2nd: Final Presentations**

Today is the first day of final presentations of group projects. Guidelines for final presentations are posted in the resources section of OWL-Space. The day and order of final presentations will be announced prior to Thanksgiving.

**Thursday, December 4th: Final Presentations**

Today is the last day of final presentations, and the last day of class. Guidelines for final presentations are posted in the resources section of OWL-Space. Following the last presentation, we will discuss your responsibilities regarding self- and team-member evaluations, and also devote a few minutes for final comments regarding the class. Your final project papers are due at the close of business tomorrow.

**Friday, December 5th: End of semester – Final Reports Due by 5PM**

**Wednesday, December 17th: End of finals – Self and Team Member Evaluations Due by NOON**